

# **Global Warming and Bay Area Transportation**

**Bruce Riordan and Chris Brittle  
Metropolitan Transportation Commission**

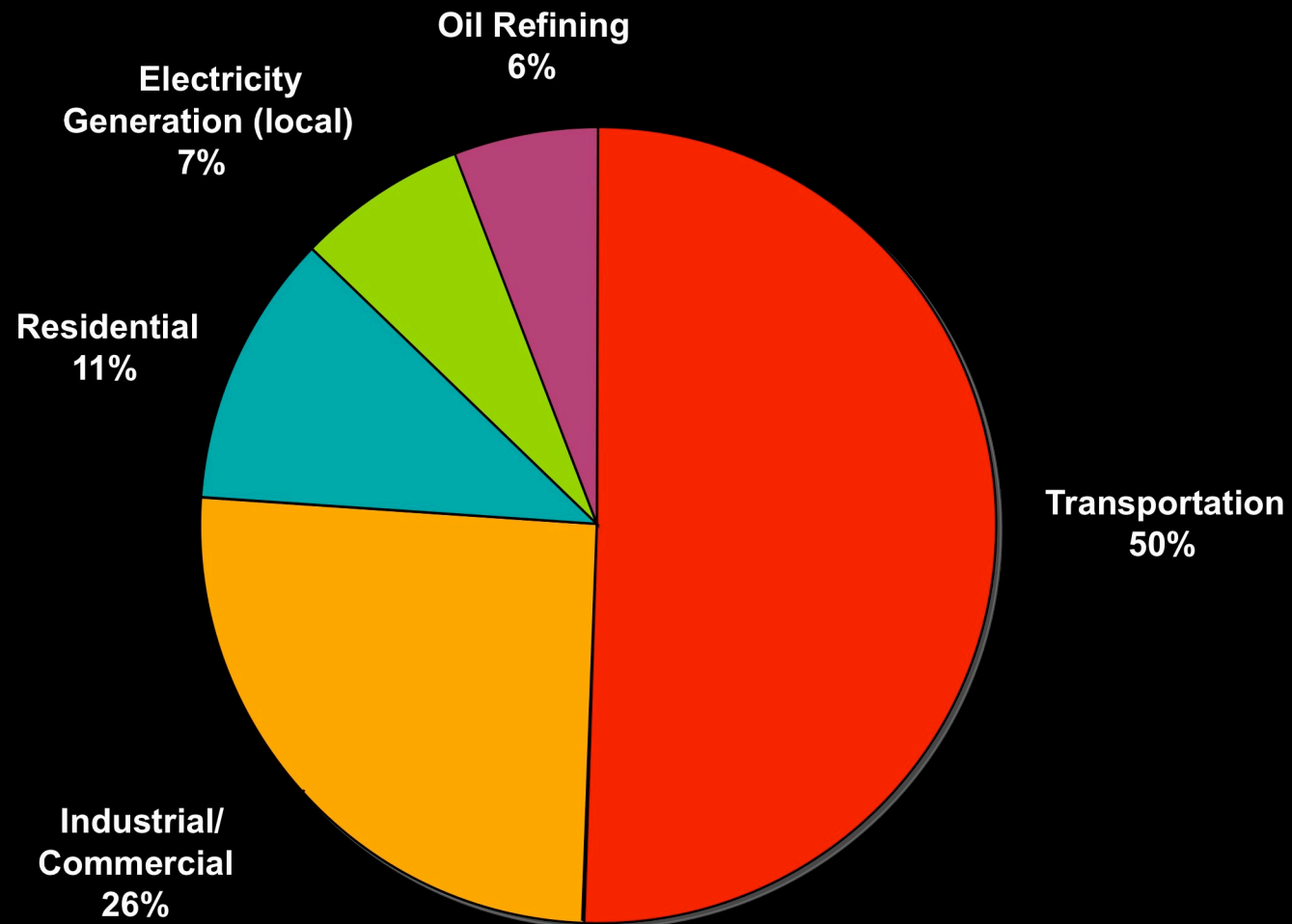
**Presentation to Joint Policy Committee  
Selected Strategies to Meet 2020 Goal**

**January 19, 2007**

# **Global Warming and Bay Area Transportation**

- 1. Importance**
- 2. Possible Strategies To  
Meet 2020 Goal**
- 3. Questions/Comments**

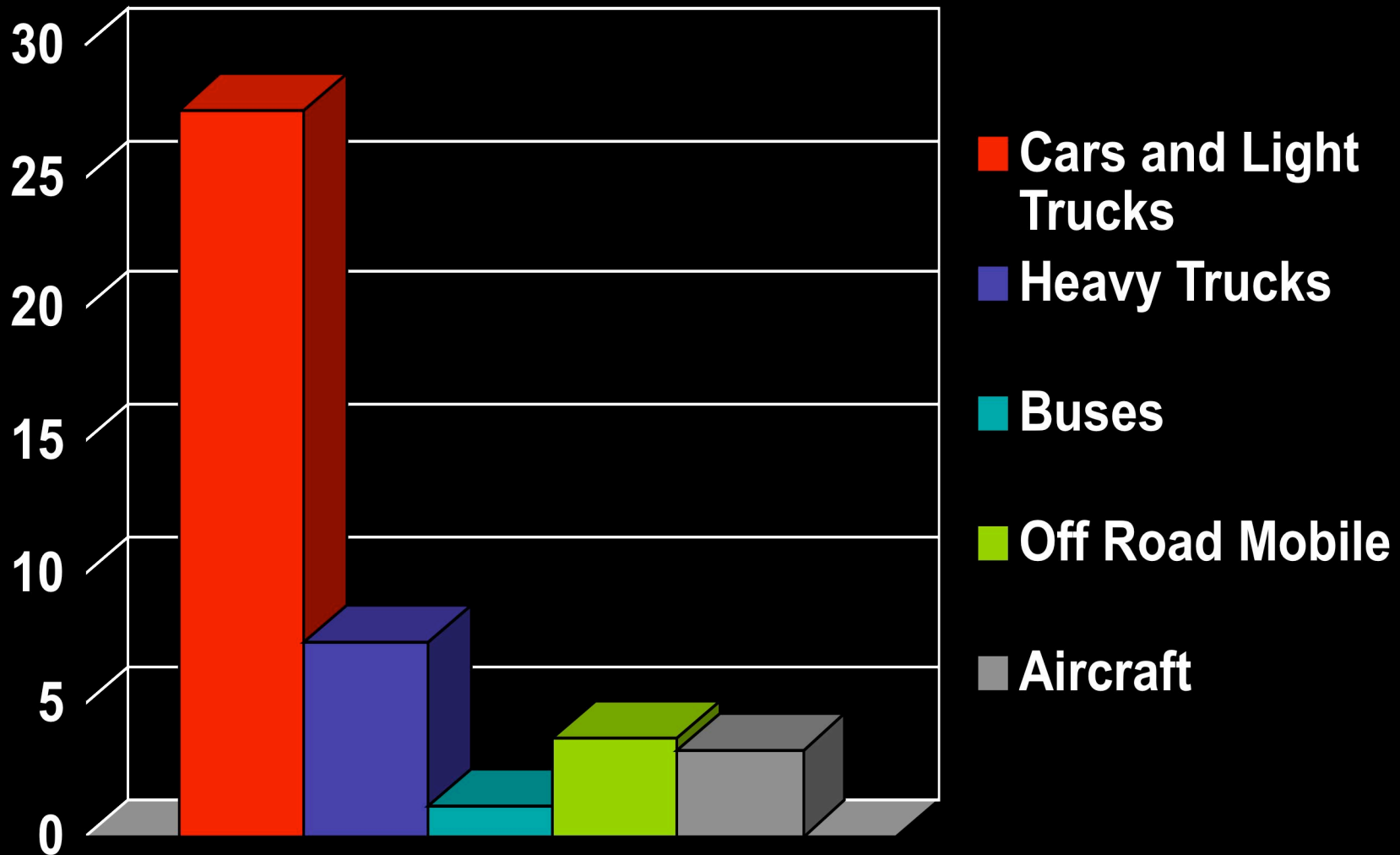
# Bay Area Greenhouse Gas Emissions



Source: BAAQMD

# Bay Area Transportation GHGs

(million tons per year)



Source: BAAQMD

# Impacts on Transportation

(1 meter sea level rise)





# Impacts on Transportation



## Storm ravages region

Heavy rain creates disasters around EP

By Daniel Borunda  
El Paso Times

More rain are expected today in the El Paso region, which is still recovering from flooding that led to evacuation plans for a part of Juárez, submerged cars and gave rise to a call for emergency volunteers.

Four days of rain have left the ground saturated, causing flooding, mudslides and hazardous slick roads, and there is a 50 percent chance of more rain today, said a forecaster with the National Weather Service office in Santa Teresa.

"We will keep a decent chance



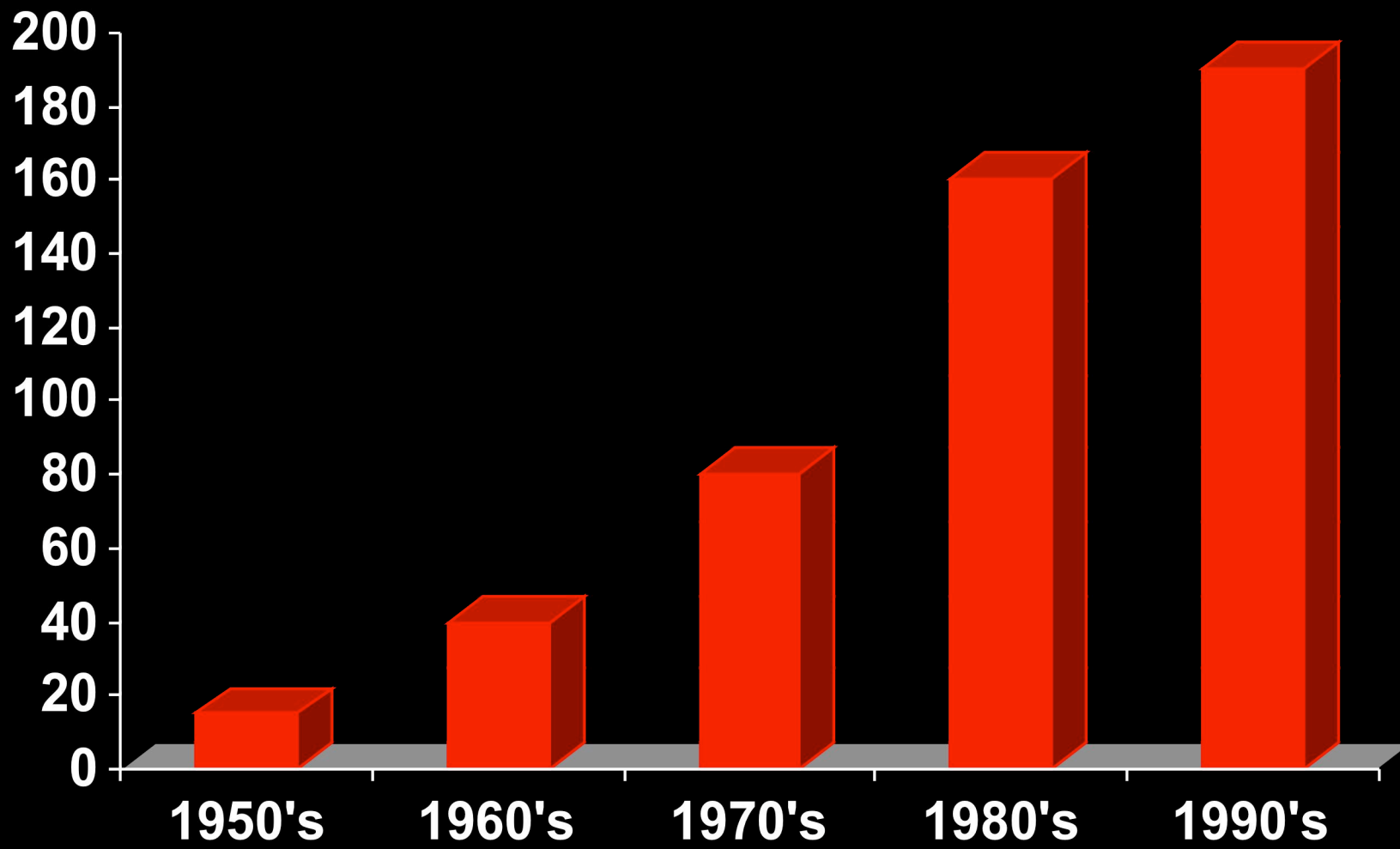
A row of cars at the Santa Teresa Terrace Apartments in the Upper Valley were rendered useless Monday, partially submerged in muddy water after rain pounded the area. A ground, tried to pull one of the cars to right.

Damage spurs insurance claims, road



# Major Flood Events

(North America and South America)



# **Two Basic Strategies**

**Reduce # of miles driven**

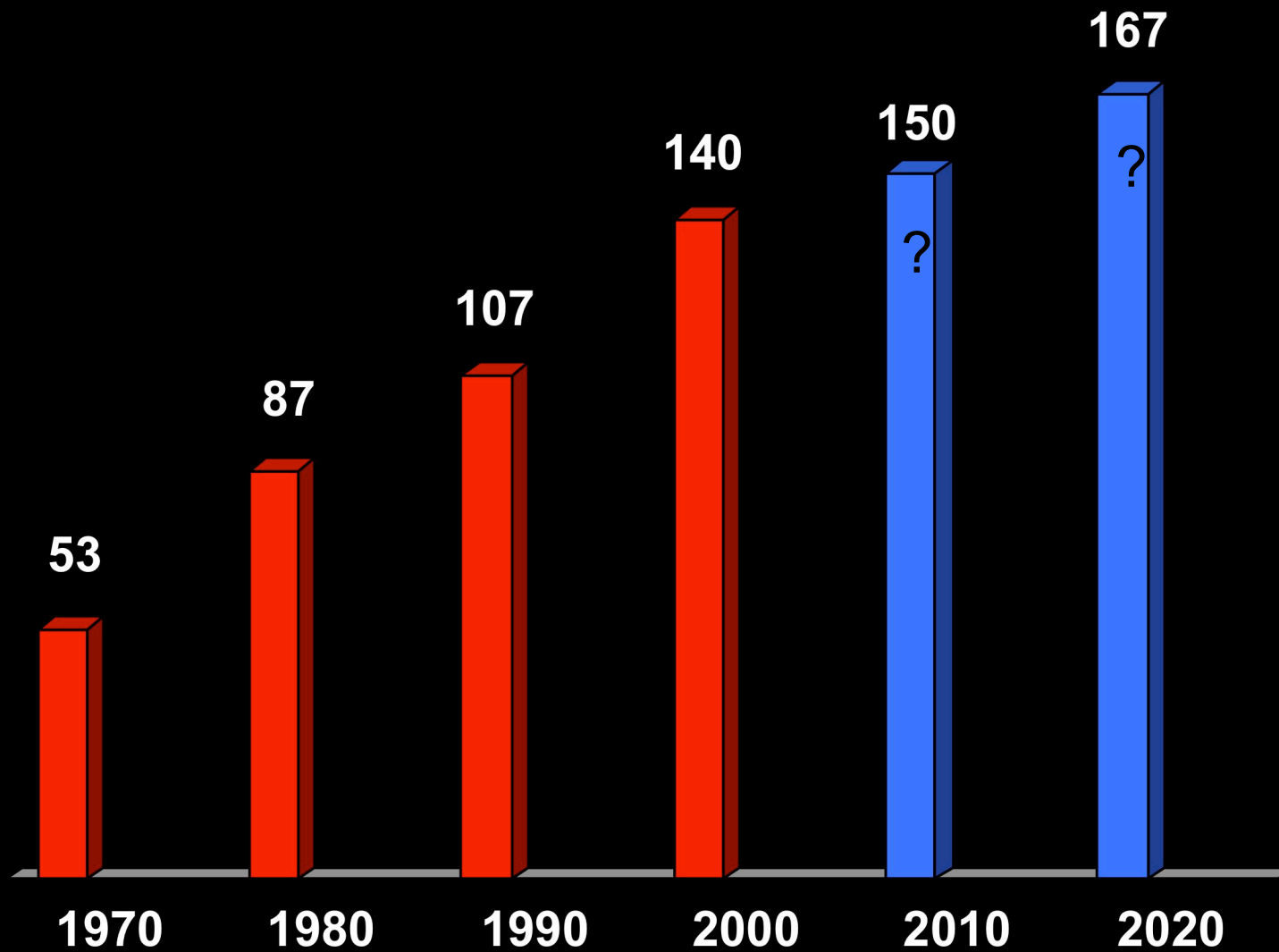
**Vehicles that use less  
gasoline/diesel**

**1 gallon gasoline = 20 lbs CO<sub>2</sub>**



# Bay Area Daily VMT 1970-2020

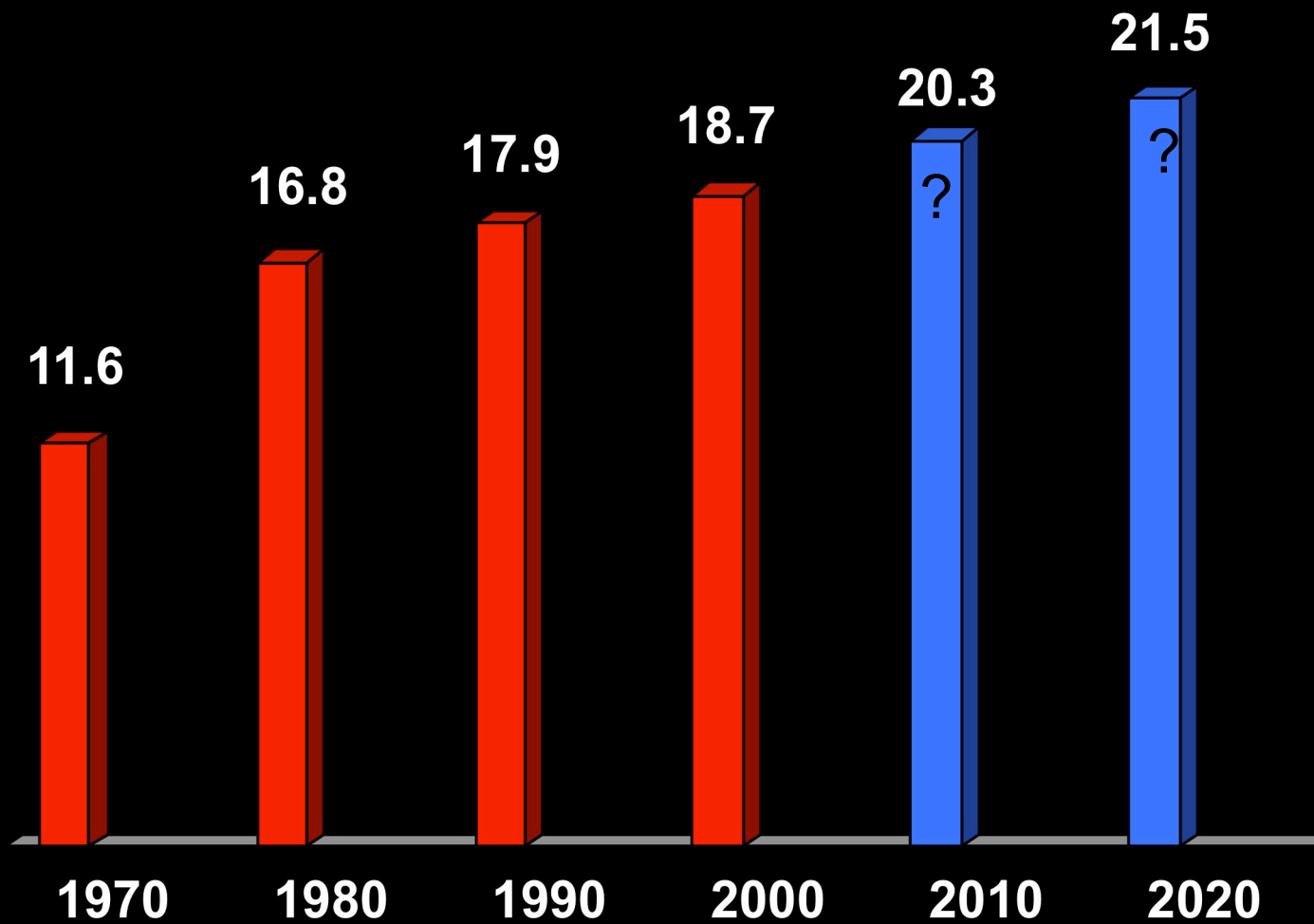
(millions)



Source: MTC

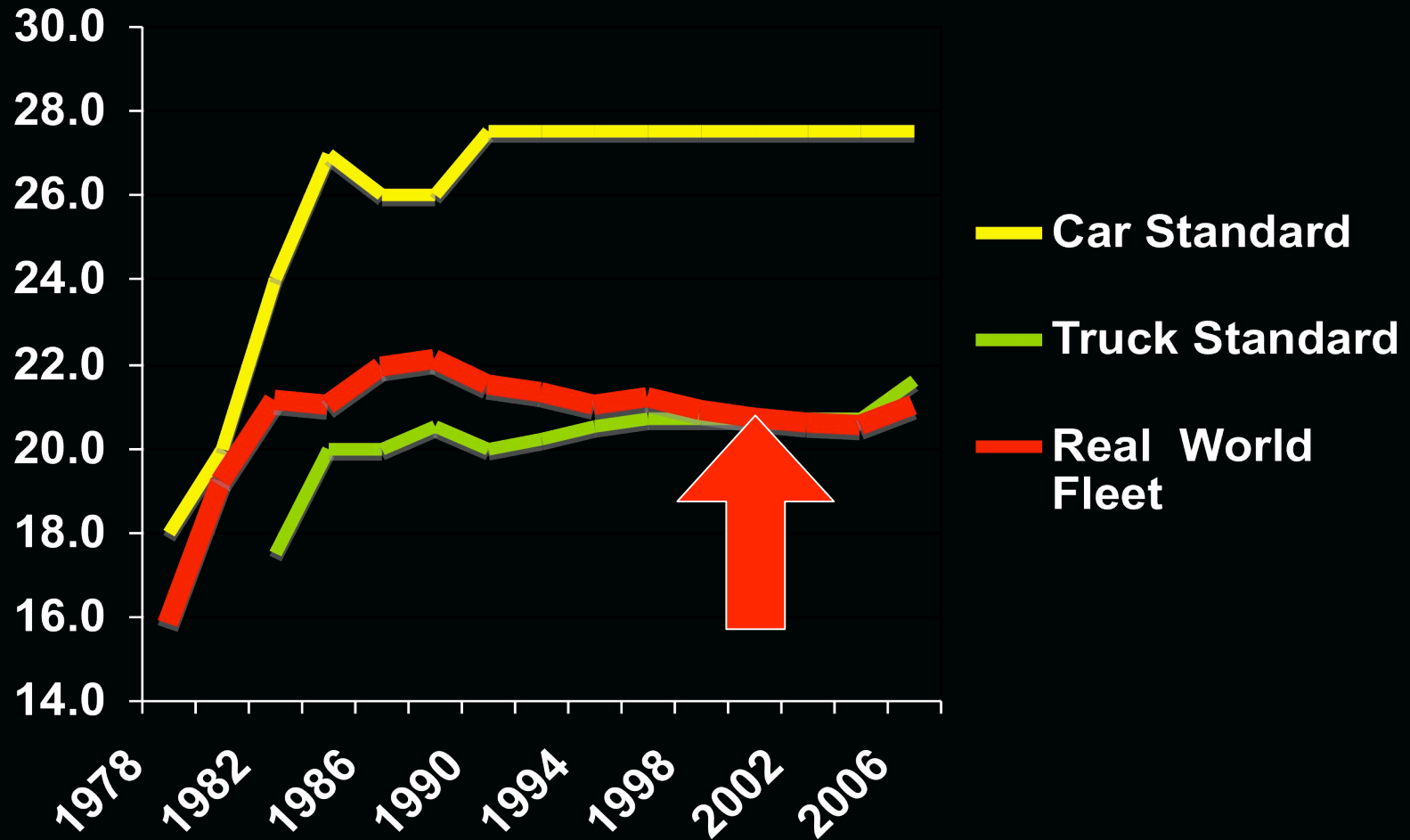
# Daily VMT Per Capita 1970-2020

(miles)



Source: MTC

# U.S. Fleet MPG 1978-2006



Source: US DOT

# **Stronger Vehicle Standards**

## **Pavley Bill: CARB regulations**

- **First mandatory GHG reduction**
- **Starts in 2009**
- **Cuts vehicle CO2 by 25%**
- **Consumer \$\$ savings**



# **Stronger Vehicle Standards**

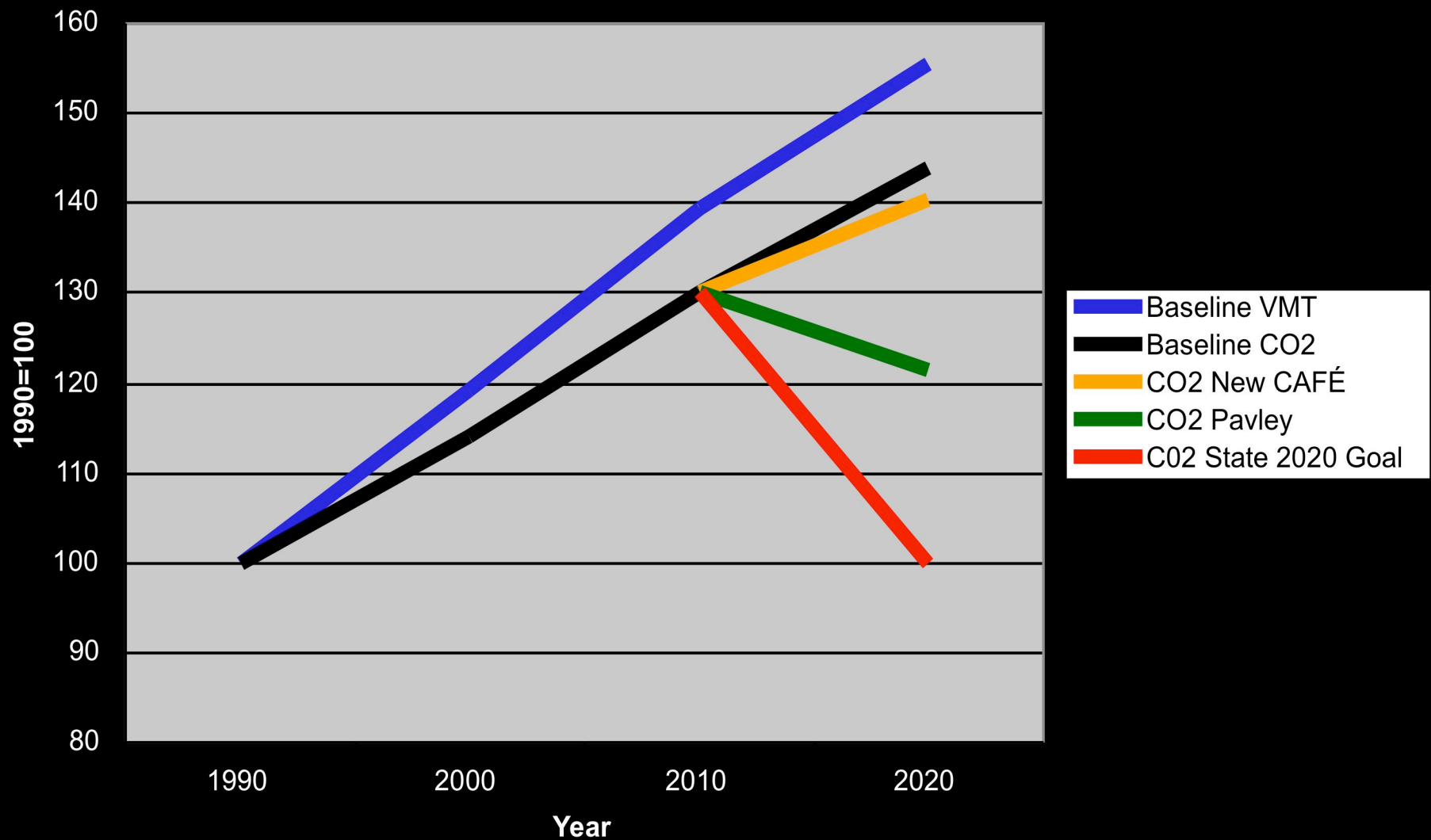
## **Pavley Bill: CARB regulations**

- **First mandatory GHG reduction**
- **Starts in 2009**
- **Cuts vehicle CO2 by 25%**
- **Consumer \$\$ savings**
- **Automakers fighting in court**





# The Bay Area 2020 Challenge



Source: MTC

# **Possible 2020 Strategies**

**(To reach AB 32 Goal: 1990 GHG level)**

- 1. Fuel Efficient Cars/Trucks**
- 2. Fuel Efficient Freight**
- 3. Fuel Efficient Roads**
- 4. Smarter Driving**
- 5. Less Driving**
- 6. Regulation**
- 7. Offsets**

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# 1. Fuel Efficient Cars/Trucks

- **Accelerate fleet turnover**
- **Plug-in Hybrids and other super fuel-efficient vehicles**



- **Cellulosic-based ethanol**



## **2. Fuel Efficient Freight**

- **Pavley for Trucks**
- **Enforce 55**



- **Truck Stop Electrification**

### **3. Fuel Efficient Streets/Roads**

- **Enforce 65 MPH**
- **55 MPH**



- **Traffic Signal Synchronization**

## **4. Smart Driving**

- **Less Aggressive: Save 20-30%**



- **Tuned, oiled & inflated: Save 10%**
- **Lose weight: 100 lbs = Save 1-2%**

## 5. Less Driving

- **Increase Transit**



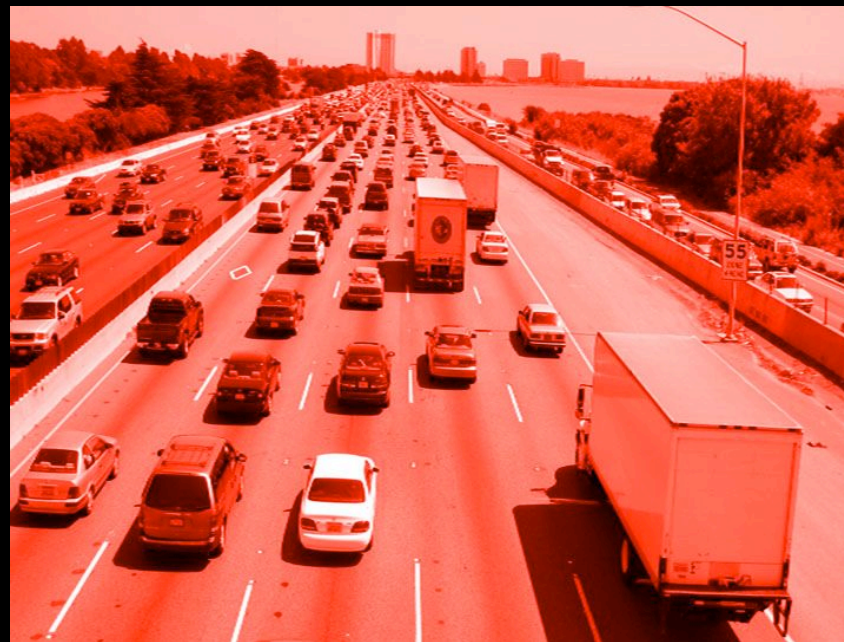
- **Increase Smart Growth**



- **Increase Carpooling**
- **Compressed Work Week**
- **Combine Short Trips**

## 6. Regulation

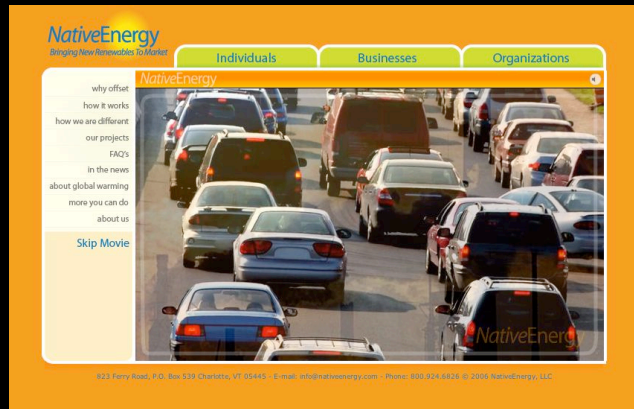
- **Incremental Gas Tax Increases**





## 7. Offsets

- **Upfront CO2 Offset Fee**

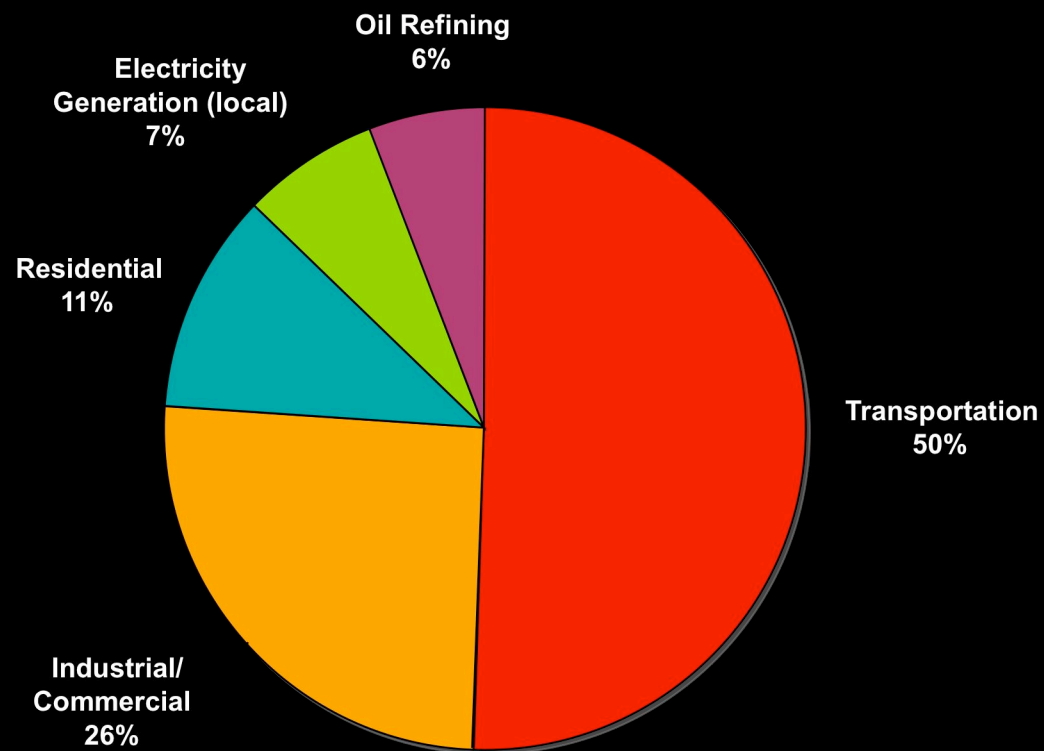


- **Pay As You Drive CO2 Offset Fee**
- **Offset Emissions from Public Transit**

# **Climate Summit Outcomes**

- **Strategies: A Million**
- ***How* is the big question**
  - **Engage the Public**
  - **Provide leadership**
  - **Encourage/Reward Innovation**

# Question, Comments, Suggestions



Source: BAAQMD